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SYSTEMIC RISK AND PRUDENTIAL POLICY

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This chapter analyses the various vulnerability and systemic risk indicators, focusing in particular on those used in decisions concerning the countercyclical capital buffer (CCyB). This analysis suggests that market risk has risen to some extent recently, but that it remains contained. The indicators of credit imbalances do not show warning signals either, although close monitoring is needed of the correction of those that exceeded the risk thresholds during the initial phases of the pandemic on account of the sharp fall in GDP. The chapter goes on to review various recent regulatory developments and macroprudential measures relevant to financial stability. Overall, significant activity is under way on this front, with the implementation of reforms agreed before the pandemic and of new initiatives stemming from the lessons learned in this crisis and in response to the rise of emerging risks (e.g. those associated with digitalisation, new technologies and climate change).

3.1 Analysis of risk indicators and systemic vulnerabilities

Although the tension unleashed in the financial markets by the outbreak of the pandemic had been almost completely corrected throughout 2021, it has risen slightly since August, prompted by higher volatility. The systemic risk indicator (SRI)¹ increased sharply during the financial market turmoil between February and March 2020. It then moved onto a sustained downward path from April 2020, returning to almost its pre-turmoil level by end-2020 (see Chart 3.1.1). However, since August 2021 the SRI has risen slightly, owing to heightened volatility in the four segments of the Spanish financial market,² particularly in the equity segment. This higher financial market volatility is not unique to Spain, but is widespread in the international markets, in a setting in which investors are starting to factor in the possible withdrawal of part of the main central banks' monetary stimuli. Overall, this evidence suggests that market risks are currently significant and need close monitoring.

The SRISK indicator, which measures banks' strength vis-à-vis adverse systemic shocks, saw a notable improvement in 2021 H1 and has stabilised since the summer. SRISK³ quantifies the systemic importance of individual banks and the banking sector overall, since it assesses and aggregates the impact of an extreme negative market event on each bank. This latent risk indicator provides

1 For a detailed explanation of the SRI calculation methodology, see Box 1.1 of the May 2013 FSR.

2 Money market, government debt, equity and financial intermediaries.

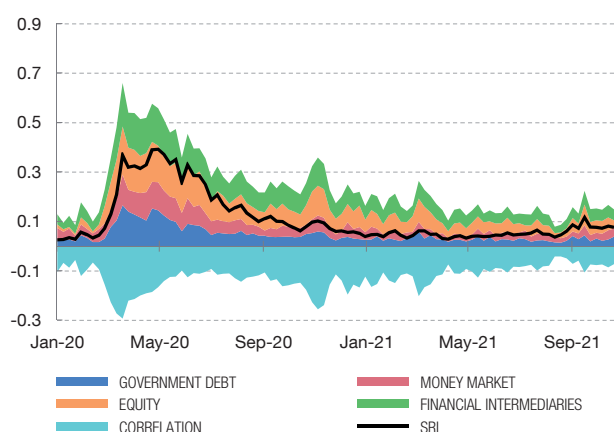
3 See C. Brownlees and R. Engle (2017) "SRISK: A conditional capital shortfall measure of systemic risk", *The Review of Financial Studies* Vol. 30, pp. 48-79.

Chart 3.1

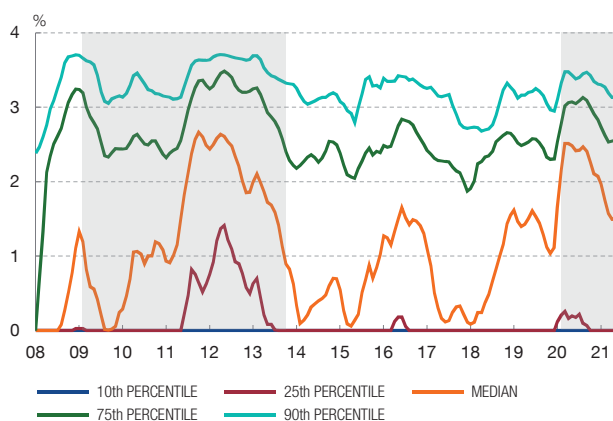
THE SYSTEMIC RISK INDICATOR (SRI) HAS RISEN SINCE AUGUST 2021 AND THE IMPROVEMENT IN BANK SYSTEMIC RISK HAS SLOWED SOMEWHAT. HOWEVER, BOTH METRICS REMAIN VERY FAR FROM THE 2020 STRESS LEVELS

Having held at very relaxed levels since end-2020, the SRI has risen since August 2021 due to heightened volatility in the financial markets, particularly in the equity segment. Banks' systemic risk, measured by the SRISK indicator, has decreased over 2021, in line with the favourable performance of the markets, although the progression of the improvement appears to have stabilised.

1 SYSTEMIC RISK INDICATOR (a)



2 DISTRIBUTION OF THE SRISK SYSTEMIC RISK INDICATOR (b)



SOURCES: Datastream, SNL, Instituto Nacional de Estadística and Banco de España.

- a The systemic risk indicator (SRI) aggregates 12 individual stress indicators (volatilities, interest rate spreads, maximum historical losses, etc.) from different segments of the Spanish financial system. In calculating the SRI, the effect of cross-correlations is taken into account, whereby the SRI registers higher values if the correlation between the four markets is high, and lower values where there is less or negative correlation. For a detailed explanation of this indicator, see Box 1.1 of the May 2013 Financial Stability Report. Data updated as at 20 October 2021.
- b SRISK captures the additional capital for covering bank capital requirements at market value when faced with a significant market shock, expressed as a percentage of each institution's total assets. The parameters used are $k=4.5\%$ for the capital requirement, $C=10\%$ for the market decline and $h=22$ business days for the period over which the hypothetical decline occurs, see Brownlees and Engle (2017) for further details. The SRISK index for the months of 2021 Q3 is calculated from the values of assets and liabilities of 2021 Q2 with the stock prices data of the corresponding month. The series have been smoothed using a three-month moving average. Compared with the results published in the Spring 2021 Financial Stability Report, the sample of European banks has been extended to include smaller institutions.

an estimate of a bank's expected capital shortfall after a hypothetical severe crisis in equity markets entailing a correction of its market capitalisation. The changes in this indicator since mid-2020 suggest a gradual decline in systemic risk in the banking sector, although it is still above pre-pandemic levels (see Chart 3.1.2). The improvement in this indicator has slowed down since July 2021, consistent with the signs of financial market volatility captured by the SRI.

The recovery in economic activity has helped correct part of the imbalances in the credit-to-GDP gap and the output gap that arose during the pandemic.

The credit-to-GDP gap, which is one of the main indicators guiding the setting of the CCyB during expansionary phases of the credit cycle, widened considerably after the outbreak of the pandemic. As mentioned in previous FSRs,⁴ in the context of the crisis prompted by the pandemic, this widening should not be interpreted as an early

4 See FSR Spring 2021.

warning of the emergence of a cyclical imbalance. It is simply the consequence of the sharp drop in GDP (the denominator in the credit-to-GDP ratio) in 2020 and of the measures to support the provision of credit to the economy. The information available for 2021 Q2 shows a significant correction in the credit-to-GDP gap for the first time since the onset of the pandemic (see Chart 3.2.1). This change in trend owes chiefly to the rebound in GDP growth, although this only partially offsets the deterioration built up since 2020. Meanwhile, credit (the ratio's numerator) has stabilised in recent quarters, after having risen significantly since 2020 Q2. Consequently, the partial correction of the widening of the credit-to-GDP gap in 2021 Q2 is a positive signal that the imbalances seen in this variable since mid-2020 may be temporary. Nevertheless, this indicator remains above the reference threshold of 2 pp, beyond which the gap is considered to show signs of imbalance in the credit cycle. It will therefore be important to monitor how the correction of this warning signal progresses over the coming quarters.

The rebound in GDP growth has also contributed to a favourable performance of other macroeconomic indicators. In particular, the negative output gap has begun to narrow, with the upward trend observed since late 2020 gaining momentum. In line with the expectations of recovery, this favourable trend is set to progress substantially over the coming quarters. Nevertheless, it remains at significantly negative values that are far from pre-pandemic levels (see Chart 3.2.1).

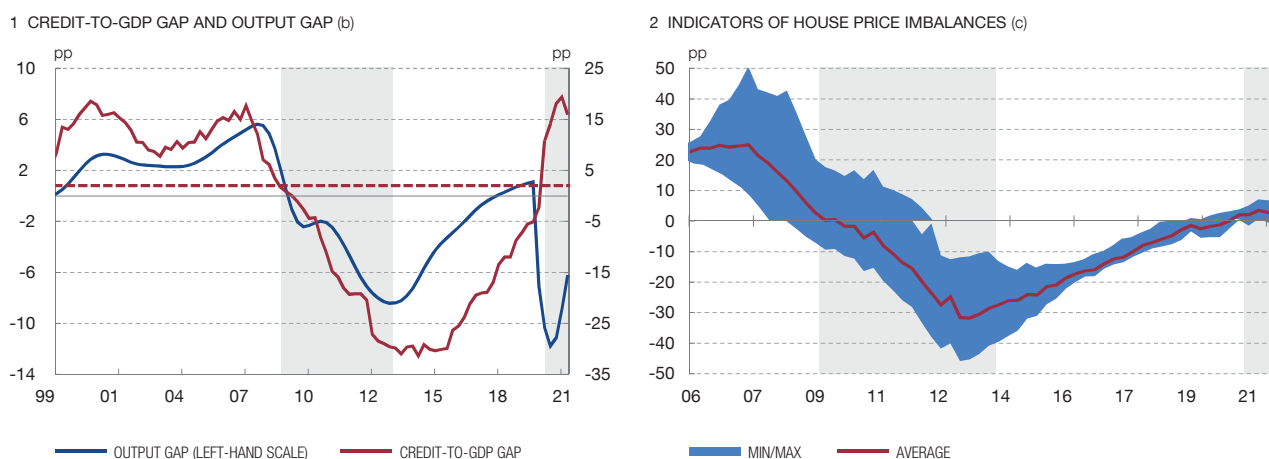
Indicators of house price imbalances suggest that such prices stand above, but very close to, their equilibrium levels. It is essential that possible price imbalances in the real estate market be analysed, because the situation in this market has a particular impact on the credit cycle, as it can amplify the cycle through mortgage loans and loans to the construction sector and to real estate activities. The Banco de España regularly analyses a series of indicators of house price imbalances that measure the difference between the average price index and their estimated long-term equilibrium level, provided by various econometric models. As mentioned in Chapter 1, all the indicators are currently close to equilibrium levels, with no signs of overvaluation (see Chart 3.2.2). Nevertheless, these indicators have risen since the run-up to the outbreak of the pandemic. Thus, while in 2019 they tended to be negative but close to equilibrium levels, they now tend to be positive but, again, close to equilibrium. It will therefore be important to monitor these indicators closely as well, to determine whether they stabilise at their current values or begin to rise to warning levels.

Since the outbreak of the pandemic, notable differences have been observed in new loans to households and firms and in the contribution of supply and demand-side factors to changes therein, which were of opposite signs in 2021 H1. Drawing on econometric models, changes in new loans to households and firms can be broken down into estimated supply and demand-side factors. The estimates from these models show that the significant decline in new loans to

Chart 3.2

INDICATORS SUCH AS THE CREDIT-TO-GDP GAP AND CREDIT INTENSITY HAVE UNDERGONE CORRECTIONS AS A RESULT OF THE REBOUND IN ECONOMIC GROWTH, WHICH IS BEGINNING TO MOVE CLOSER TO ITS POTENTIAL, BUT HAS NOT YET REACHED ITS PRE-PANDEMIC LEVEL (a)

The information available for 2021 Q2 shows a significant correction in indicators such as the credit-to-GDP gap and credit intensity. This recovery owes chiefly to the rebound in GDP growth, which has not yet reached its pre-pandemic level but is beginning to move closer to its potential. The credit-to-GDP gap remains above the reference threshold of 2 pp and should therefore be carefully monitored in the coming months for potential signs of imbalances in the credit cycle.



SOURCES: Instituto Nacional de Estadística and Banco de España.

- a The areas shaded in grey represent the periods of the two financial crises in Spain since 2009: the systemic banking crisis (2009 Q1 to 2013 Q4) and the crisis unleashed by the COVID-19 pandemic (2020 Q1 to 2021 Q2).
- b The output gap is the percentage difference between observed GDP and potential GDP. Values calculated at constant 2010 prices. See P. Cuadrado and E. Moral-Benito (2016) "Potential growth of the Spanish economy", Occasional Paper 1603, Banco de España. The credit-to-GDP gap is calculated as the difference, in percentage points, between the observed ratio and the long-term trend calculated using a statistical one-sided Hodrick-Prescott filter with a smoothing parameter equal to 25,000. This parameter is calibrated to the financial cycles historically observed in Spain. See J. E. Galán (2019) "Measuring credit-to-GDP gaps. The Hodrick-Prescott filter revisited", Occasional Paper 1906, Banco de España. Data available up to June 2021. The broken red horizontal line represents the reference CCyB activation threshold of 2 pp for the credit-to-GDP gap.
- c The area shaded in blue represents the minimum and maximum values of the four indicators of imbalances in house prices. The indicators are: i) the real house price gap, ii) the house prices to household disposable income ratio gap, iii) the ordinary least squares model which estimates house prices based on long-term trends in household disposable income and mortgage interest rates, and iv) the error correction model which estimates house prices based on household disposable income, mortgage interest rates and fiscal effects. The long-term trends are calculated in all cases using a statistical one-sided Hodrick-Prescott filter with a smoothing parameter equal to 400,000.

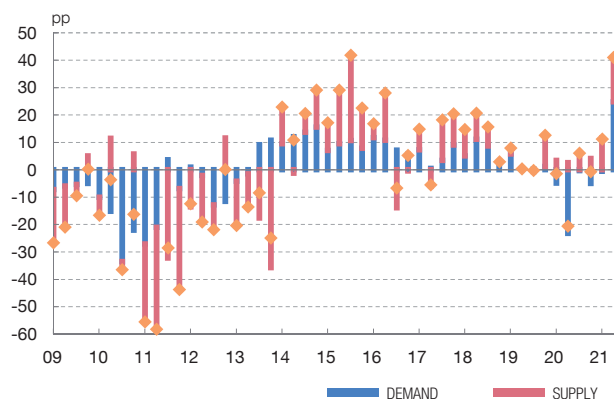
households in 2020 Q2 owed mainly to lower demand. This situation reversed swiftly in 2020 H2 and, even more so, in 2021 H1, when such lending rose sharply, further underpinned by supply-side factors (see Chart 3.3.1). New lending to firms grew notably in 2020 Q2, owing to supply-side and, to a lesser extent, demand-side factors. This reflects, on the one hand, firms' demand for liquidity due to the abrupt fall in their income and, on the other, the pick-up in supply facilitated by the guarantee schemes and other support measures adopted in response to the pandemic. However, this type of lending has declined since 2020 Q3, owing to the decrease in both demand and supply, which could point to the waning stimulation capacity of the support schemes (see Chart 3.3.2). These findings are consistent with the Bank Lending Survey for 2021 Q2, which suggests that concern about non-performing loans has led the supply of credit to firms to tighten somewhat in 2021 H1 as a

Chart 3.3

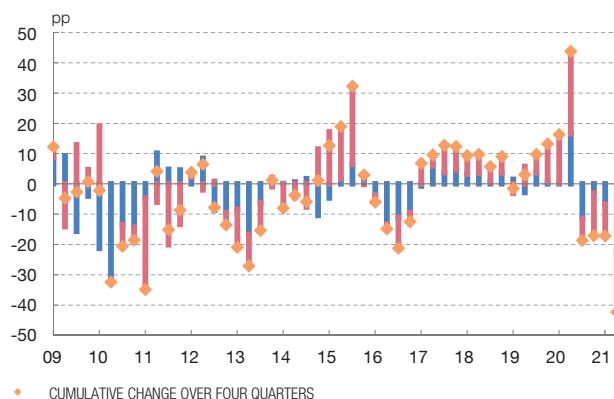
IN THE FIRST SEMESTER OF 2021 SUPPLY AND DEMAND-SIDE FACTORS HAVE SIGNIFICANTLY BOOSTED NEW LENDING TO HOUSEHOLDS, WHILE CONTRACTING NEW LENDING TO FIRMS

In the early months of the pandemic, loans to households declined owing to a sharp contraction in demand, while loans to firms grew notably driven by these agents' demand for liquidity and the supply stimulus provided by the support measures implemented. From 2020 H2 to 2021 H1 the pattern reversed in both cases. There has been a strong increase in lending to households, due to both supply and demand-side factors, and a contraction in lending to firms, owing to both a decline in demand attributable to lower liquidity needs and a contraction in supply, at least partly explained by the base effect induced by the support measures implemented in the second quarter of 2020.

1 BREAKDOWN OF NEW LENDING TO HOUSEHOLDS INTO SUPPLY AND DEMAND-SIDE FACTORS (a)



2 BREAKDOWN OF NEW LENDING TO FIRMS INTO SUPPLY AND DEMAND-SIDE FACTORS (a)



SOURCE: Banco de España.

a Cumulative change over four quarters. Breakdown of the supply and demand-side effects obtained using a structural vectoral autoregression (S-VAR) model through which the short-term relationships between credit and interest rate spreads are estimated, allowing for simultaneous shocks between the two variables. The models are estimated separately for lending to households and firms. Data on new lending in euro area countries are used. New lending excludes renegotiations, overdrafts and credit card balances. For further details, see Box 1 in P. Alves, F. Arrizabalaga, J. Delgado, J. Galán, E. Pérez, C. Pérez and C. Trucharte (2021) "Recent developments in financing and bank lending to the non-financial private sector", Analytical Articles, Economic Bulletin 1/2021, Banco de España.

whole. In any event, this effect may be temporary, as the latest data suggest that the supply of credit to firms is stabilising.⁵

Taking this set of macro-financial indicators into account, the Banco de España has maintained the CCyB rate at 0% and does not envisage increasing it until economic activity has returned to its potential level or there are signs of imbalances arising in the credit cycle. As it has regularly announced⁶ since March 2020, the Banco de España continues to consider it appropriate to maintain the CCyB rate applicable to exposures in Spain at the minimum of 0% to make it easier for banks to be able to sustain the credit flow and thus contribute to alleviating the negative

5 See A. Menéndez and M. Mulino (2021) "The July 2021 Bank Lending Survey in Spain", Analytical Articles, Economic Bulletin 3/2021, Banco de España, and A. Menéndez and M. Mulino (2021) "The October 2021 Bank Lending Survey in Spain", Analytical Articles, Economic Bulletin 4/2021, Banco de España

6 The Banco de España has recently adapted its statements on the quarterly CCyB decisions on account of the amendments set out in Directive (EU) 2019/878 (CRD V) simplifying the framework for notifying CCyB measures in those quarters when the rate for this tool is not recalibrated. Specifically, the Banco de España's quarterly press releases on the CCyB that were released until March 2021 have been replaced by the dissemination of an updated Excel file with the quantitative information used to inform the latest quarterly decision (available in the CCyB section of the Banco de España's website).

pressure on economic growth. Holding the CCyB rate at 0% is consistent with the guidance on the flexible application of prudential requirements in response to this crisis advocated by the ECB and other EU (ESRB, EBA) and global bodies (BCBS and FSB).⁷ Insofar as the economic recovery takes hold, the CCyB rate, no longer in a context of crisis, will be conditional upon the path of recovery and the possible emergence of systemic imbalances that could be tackled by this macroprudential tool.

Some European countries are taking measures to raise the CCyB rate. The macro-financial situation of other European economies is highly diverse. Some are already in a marked upward phase of their credit cycle, in which cyclical systemic imbalances have arisen, and have already announced measures for restoring the CCyB. Specifically, the authorities in Bulgaria,⁸ Denmark⁹ and Sweden¹⁰ have in recent months announced that the CCyB rate is to be set at 1%, while those in the Czech Republic¹¹ and Norway¹² have opted to set it at 1.5%. All these measures, which are geared towards replenishing part or all of the CCyB in place in these countries at the start of the pandemic, will be effective from 2022 Q3.

The empirical evidence during the pandemic suggests that building up macroprudential buffers in normal times and subsequently releasing them in crisis situations helps stabilise lending to the economy. Econometric estimates can be made of the probability of different credit growth scenarios over a one-year horizon, assessing how they are affected by changes in macroprudential policy.¹³ The results of this analysis for European countries show that expected growth already exceeds the pre-pandemic estimate. This is the case both in countries that were able to ease macroprudential measures in response to the pandemic and in those that were unable to do so owing to a lack of macroprudential space, as they had not previously activated such measures because they did not present systemic risk (see Chart 3.4).

7 Additionally, each year the Banco de España identifies a list of third countries (i.e. outside of the European Economic Area) that are materially significant for the Spanish banking system for CCyB purposes, based on the volume of Spanish banks' international exposures. This exercise is conducted pursuant to the methodological recommendations of the ESRB. In 2021 the Banco de España identified the following eight material countries (in alphabetical order): Brazil, Chile, Colombia, Mexico, Peru, Turkey, the United Kingdom and the United States.

8 See the [Countercyclical Capital Buffer section of the Bulgarian National Bank's website](#).

9 See "[Reactivation of the countercyclical capital buffer](#)", Danish Systemic Risk Council (Det Systemiske Risikorad) recommendation of 22 June 2021.

10 See "[FI intends to raise the countercyclical buffer rate to 1 per cent](#)", Swedish Financial Supervisory Authority (Finansinspektionen) press release of 9 September 2021.

11 See "[Provision of a general nature III/2021 on setting the countercyclical capital buffer rate for the Czech Republic](#)" of 26 August 2021, Česká národní banka.

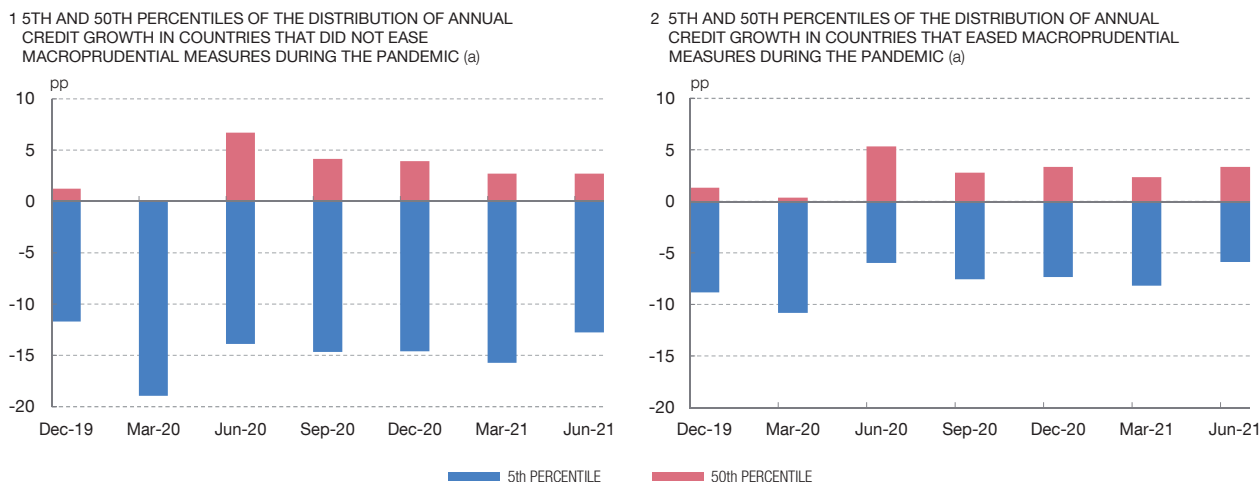
12 See "[Advice on the countercyclical capital buffer 2021 Q2](#)", Norges Bank press release of 17 June 2021. The Norwegian central bank has become the national designated authority for decision-making concerning this macroprudential tool, having been recently delegated this competence, which was previously the responsibility of the Ministry of Finance. See "[New Tasks for Norges Bank](#)", press release of 3 September 2021.

13 These estimates are made using quantile regressions of credit growth based on the methodology recently developed by the Banco de España for assessing the impact of the build-up of cyclical vulnerabilities, the bouts of financial stress and the use of macroprudential tools on GDP growth distribution. For a detailed description of its use, see [Box 3.1, 2020 Autumn FSR](#), and for methodological details, see J. E. Galán (2020) "[The benefits are at the tail: Uncovering the impact of macroprudential policy on growth-at-risk](#)", *Journal of Financial Stability*.

Chart 3.4

COUNTRIES THAT HAD ROOM TO EASE MACROPRUDENTIAL MEASURES DURING THE PANDEMIC HAD A LOWER RISK OF SEVERE CREDIT CONTRACTION, WITH THIS PATTERN CONTINUING IN 2021

Estimates of median credit growth over a one-year horizon (50th percentile) do not differ significantly between countries that eased macroprudential measures and those that did not. However, significant differences are seen in terms of the change in credit that would be observed under an adverse scenario (5th percentile). While, under such a scenario, credit contraction is even lower than the pre-pandemic estimate in countries that eased macroprudential measures, it is more than twice as high, exceeding the pre-pandemic estimate, in those that did not have room to ease such measures.



SOURCE: European Banking Authority and Bank for International Settlements.

a The bars represent the average for the countries in the group under analysis in the 5th and 50th percentiles of the estimated credit growth distribution over a one year horizon, estimated at the dates indicated. The estimates are calculated using quantile regressions of one-year credit growth on variables capturing cyclical vulnerabilities, financial stress episodes, economic growth and the use of macroprudential tools.

However, there are significant differences between these two groups of countries as regards the so-called “credit growth-at-risk”, i.e. the credit growth rate that would be observed under an adverse scenario that occurs with a 5% probability. In countries that have eased macroprudential measures, the estimated decline in credit under the aforementioned adverse scenario has remained relatively stable since the start of the pandemic and is in fact lower than the pre-crisis estimate. By contrast, in countries without this type of buffer, credit growth-at-risk is more than two times lower and remains below pre-pandemic estimates. Given the similar median growth projections for the two groups of countries, it could be concluded that the existence of macroprudential space in crisis periods results in less uncertainty about the variability of credit growth compared with the baseline scenario and, therefore, more stable lending to the real economy throughout economic cycles.

In July 2021 the Banco de España announced the designation of other systemically important institutions (O-SIIs), together with their macroprudential capital buffers applicable in 2022.¹⁴ Designation as a systemically important

¹⁴ See “The Banco de España updates the list of other systemically important institutions and sets their macroprudential capital buffer rates for 2022”, press release of 29 July 2021.

Table 3.1

CAPITAL BUFFERS FOR SYSTEMICALLY IMPORTANT INSTITUTIONS

Legal Entity Identifier	Institution	Designation (a)	Capital buffer to be required in 2022 (b)
5493006QMFDDMYWIAM13	Banco Santander, S.A.	G-SII and O-SII	1.0%
K8MS7FD7N5Z2WQ51AZ71	Banco Bilbao Vizcaya Argentaria, S.A.	O-SII	0.75%
7CUNS533WID6K7DGF187	CaixaBank, S.A.	O-SII	0.375%
SI5RG2M0WQQLZCXKRM20	Banco de Sabadell, S.A.	O-SII	0.25%

SOURCE: Banco de España.

a G-SII means Global Systemically Important Institution.

b The capital buffer applicable to CaixaBank, S.A. will be 0.5% from 1 January 2023 onwards (to be confirmed in next year's O-SII decision).

institution entails the requirement of an additional capital surcharge, which aims to internalise the greater impact on financial stability were these banks to experience difficulties, and to mitigate possible competitive advantages they might have in the markets owing to their systemic nature. The list of O-SIIs has changed from previous years because BFA Tenedora de Acciones, S.A.U. (holding company of Bankia, S.A.) is no longer considered as such on account of the merger by acquisition of Bankia, S.A. by CaixaBank, S.A. in March 2021. CaixaBank's greater systemic importance following this merger entails a 0.25 pp increase in its O-SII capital buffer, according to the methodology used by the Banco de España to determine this macroprudential requirement. In the light of last year's crisis, this increase to 0.5% will be applied gradually until 1 January 2023, such that in 2022 the institution's buffer will be 0.375% (see Table 3.1).

3.2 Regulatory developments relevant to financial stability

Since the publication of the Spring FSR, some of the exceptional temporary measures introduced in the wake of the pandemic have been withdrawn, while progress has continued in various initiatives to develop and strengthen the banking sector's prudential regulation. Most notably, the results of the stress tests on European banks and the improved macroeconomic outlook across the board have made it possible to lift the EU-wide precautionary restrictions on profit distribution by financial institutions. This return to normal has been accompanied in some countries by the tightening of some macroprudential measures, as analysed in Section 3.1. In recent months, the European Commission has begun the review of the macroprudential framework of EU banking regulation and has announced the legislative proposal for the technical developments for implementing the outstanding Basel III reforms in the EU. Other important areas of regulatory and supervisory focus will continue to be crypto-assets and climate change risks.

The recommendations introducing system-wide restrictions in Europe on profit distribution by financial institutions prompted by the COVID-19 pandemic have been repealed. The economic upturn anticipated by the latest projections, the reassuring outcome of the EBA and SSM stress tests and lower uncertainty led the ECB to decide¹⁵ in July not to extend beyond 30 September 2021 its recommendation, in place since the start of the pandemic, that all significant credit institutions under its direct supervision limit dividend distribution. In coordination with other national authorities, the Banco de España also agreed¹⁶ not to extend its recommendation for less significant institutions in Spain, which also expired on 30 September. At the same time, the ESRB also decided¹⁷ to allow its dividend recommendation affecting various sectors of the EU financial system to expire as of 1 October. All these authorities have publicly reiterated the need to remain prudent in decisions on dividend distribution, equity buybacks and remuneration policies, paying particular attention to business model sustainability.

Various studies suggest that the limitations on dividend distribution have had a significant positive impact on new lending and solvency ratios. Empirical analysis of granular bank lending data shows that Spanish institutions which did not distribute dividends in 2020 were more active granting loans and, consequently, helped to mitigate the impact of the crisis on the real economy.¹⁸ At the global level, in countries where restrictions were implemented, capital ratios recovered from the falls in 2020 Q1, or even increased, despite the fall in profit. Conversely, capital ratios continued to decline in countries where no restrictions were implemented initially.¹⁹

The European macroprudential framework in the capital requirements legislation (CRR and CRD) will be reviewed in the coming months. As laid down in Article 513 of Regulation (EU) 2019/876 (CRR), by 30 June 2022, and every five years thereafter, the European Commission shall review whether the macroprudential rules contained in the EU regulations in force are sufficient to properly mitigate systemic risks. This review will allow the use and design of macroprudential tools to be examined in the light of the practical experience gained in recent years since macroprudential tools were effectively introduced in 2016 and of some of the lessons learned from the COVID-19 pandemic crisis in particular. Specifically, the desirability of increasing the share of releasable buffers, as opposed to structural buffers, and the practical difficulties faced by banks when using their buffers could be considered.

15 See “ECB decides not to extend dividend recommendation beyond September 2021”, ECB press release of 23 July 2021.

16 See “Recomendación sobre distribución de dividendos y remuneración variable”, Banco de España statement of 23 July 2021 (only available in Spanish).

17 See “The General Board of the European Systemic Risk Board held its 43rd regular meeting on 23 September 2021”, ESRB press release of 24 September 2021.

18 See D. Martínez Miera and R. Vegas (2021) “Impact of the dividend distribution restriction on the flow of credit to non-financial corporations in Spain”, Analytical Article, *Economic Bulletin* 1/2021, Banco de España.

19 See B. Hardy (2021) “Covid-19 bank dividend payout restrictions: effects and trade-offs”, *BIS Bulletin* 38.

To review the macroprudential framework, the European Commission has requested advisory reports from the ECB, the EBA and the ESRB. Through a call for advice²⁰ addressed to these three authorities, the Commission seeks to obtain qualitative and quantitative evidence to support possible legislative changes. The three authorities consulted will need to submit their views by 31 March 2022 so that the European Commission can propose a legislative reform no later than December 2022, which will then be negotiated with the Council and the European Parliament.

Further progress has been made on pending EU prudential regulatory developments. Notable in the macroprudential realm is the amendment of the regulatory technical standards (RTSs) for identifying G-SIIs, which set out the additional methodology for identifying these institutions.²¹ In addition, the EBA has submitted to public consultation the review of the prudential treatment of exposures secured by immovable property. Under this prudential treatment, the relevant authorities may set higher risk weights or increase the minimum LGD values when these do not adequately reflect risk or are inadequate and could adversely affect financial stability in the Member State. The EBA's draft RTS was submitted to public consultation²² and its final version is expected to be ready in the coming months.

On 27 October, the European Commission published a proposal to review the regulation applicable to the banking sector²³, which includes legislative changes to implement the Basel III agreement²⁴, considering the specific characteristics of the European banking sector. The proposal aims to strengthen EU banks' resilience, without resulting in significant increases in capital requirements, and introduces an extended transitional period, starting in 2025 for some aspects. It also sets rules on the management, monitoring and disclosure to third parties of environmental, social and governance (ESG) risks, in keeping with the objectives of the EU's sustainable finance strategy. Lastly, the supervisory toolkit is

20 See "Call for Advice - Review of the EU Macroprudential Framework", European Commission, 8 July 2021.

21 See Commission Delegated Regulation (EU) 2021/539 of 11 February 2021 amending Delegated Regulation (EU) No 1222/2014 supplementing Directive 2013/36/EU of the European Parliament and of the Council with regard to regulatory technical standards for the specification of the methodology for the identification of global systemically important institutions and for the definition of subcategories of global systemically important institutions.

22 See "EBA consults on draft technical standards specifying how to identify the appropriate risk weights and conditions when assessing minimum LGD values for exposures secured by immovable property", EBA press release of 29 April 2021.

23 See "Banking Package 2021: new EU rules to strengthen banks' resilience and better prepare for the future", legislative proposal of the European Commission of 27 October.

24 With regard to the implementation of Basel III in Europe, two letters sent to the European Commission by 25 EU central banks and national supervisory authorities (including the Banco de España) and by the ECB and the EBA were made public. Both letters called on the Commission to implement the Basel III agreement in a full, consistent and timely manner. See "The EU should stick to the Basel III agreement", letter of 7 September 2021 signed by the central banks and banking supervisory authorities of Austria, Belgium, Bulgaria, Croatia, the Czech Republic, Estonia, Greece, Ireland, Italy, Latvia, Lithuania, Malta, the Netherlands, Poland, Portugal, Slovakia, Slovenia, Spain and Sweden. See "EU implementation of outstanding Basel III reforms", letter of 7 September 2021 co-signed by the Chairperson of the EBA, the Vice President of the ECB and the Chair of the Supervisory Board of the ECB.

enhanced in certain areas to ensure sounder and more prudent management of EU banks. In addition, the European Commission has published a proposal to amend some prudential and resolution rules in order to clarify the regime of requirements for liabilities payable in chains of subsidiaries (the so-called Daisy chains) and the requirements in the area of resolution of institutions of global systemic importance (G-SII). This proposal will be processed in an accelerated and separate manner.

Faced with the increasing relevance of climate-related impacts on finance, both the EBA and the BCBS have published reports on this matter. In June, the EBA released²⁵ a report on management and supervision of ESG risks. The report includes a comprehensive proposal on how ESG factors and ESG risks should be integrated into the strategy, governance and risk management of credit institutions and investment firms, as well as into supervisory processes. To enhance the supervisory review and evaluation process (SREP), in this report the EBA sees a need to extend the time horizon of the assessment and proposes including environmental and climate-related factors and risks into the business model. Later this year, the EBA plans to publish the disclosure requirements (Pillar 3) for credit institutions regarding the risks identified in this report.

In April, the BCBS published two analytical reports on climate-related financial risks.²⁶ The two reports broach: (i) climate-related risk drivers and their transmission channels to the banking system and (ii) the corresponding measurement methodologies. Although climate risk can be captured in traditional financial risk categories, they both acknowledge that additional progress is needed to better estimate these risks. In this setting, the reports provide a conceptual basis for identifying gaps in the current Basel framework and possible measures to address them. The BCBS is working on a set of supervisory practices which it plans to consult on by the end of the year and will continue to analyse whether supervisory, regulatory or transparency measures are needed. Box 3.1 of this Report sets out the stress tests conducted on Spanish banks by the Banco de España to gauge the implications of the materialisation of some of these climate-related risks. Box 3.2 quantifies the potential implications of an episode of environmental deterioration, which can help measure the impact of the materialisation of climate-related physical risks in the future.

The continued growth and innovation seen in crypto-assets, including so-known stablecoins, further underlines the importance of the work of the BCBS and the FSB in this area, which focuses on analysing the implications this may have for the stability of the financial system. Although banks' exposure to crypto-assets is currently limited, innovation in crypto-assets and related services, coupled with some banks' increased interest, could heighten concerns about global financial

25 See "EBA publishes its Report on management and supervision of ESG risks for credit institutions and investment firms", EBA press release of 23 June 2021.

26 See "Basel Committee publishes analytical reports on climate-related financial risks", BCBS press release, April 14 2021.

stability and the risks to the banking system in the absence of a specific regulatory framework.²⁷ The BCBS has run a public consultation on its proposals for the prudential treatment of banks' crypto-asset exposures this year.²⁸ In 2020, the FSB issued a series of high-level recommendations for the regulation, supervision and oversight of "global stablecoin" (GSC) arrangements,²⁹ a specific type of crypto-asset which seeks to hold a stable value by pegging it to another asset, such as a stable fiat currency. The recommendations promote coordinated and effective regulation, supervision and oversight of GSCs to address the financial stability risks they pose, both domestically and globally, and are part of a broader FSB work programme which will continue until at least 2023.

The transposition in Spain of the changes in the bank recovery and resolution framework (BRRD II)³⁰ is also progressing. The BRRD II introduced significant new features in the EU resolution framework, such as a reviewed methodology for determining the minimum requirement for own funds and eligible liabilities (MREL), a requirement equivalent to TLAC standard for G-SIIs and the possibility for resolution authorities to suspend the contractual obligations of institutions. Its transposition into Spanish law has begun with Royal Decree-Law 7/2021 amending Law 11/2015, among other regulations, and is expected to conclude shortly with the publication of a royal decree amending Royal Decree 1012/2015.

The European Commission has also started to review the bank crisis management and deposit insurance framework, with the aim of making it more flexible and efficient and increasing depositor protection, ensuring they receive equal treatment. This review is part of the agenda to complete the Banking Union, which will culminate in the creation of a European Deposit Insurance Scheme (EDIS). The Commission is also contemplating harmonising insolvency regimes,³¹ which would include quasi-resolution tools for the administrative winding-up of credit institutions and would ensure the support of insolvency deposit insurance schemes as an alternative to paying the covered deposits.³² The proposal for a Directive is expected to be published towards the end of 2021.

27 As part of the Digital Finance Strategy for the European Union, in September 2020 the European Commission submitted Proposal for a Regulation COM/2020/593 on markets in crypto-assets to the European Parliament and the Council, which would potentially correct this situation in Europe.

28 See "Basel Committee consults on prudential treatment of crypto-asset exposures", BCBS press release of 10 June 2021.

29 See "Regulation, Supervision and Oversight of Global Stablecoin Arrangements", FSB report of 13 October 2020.

30 See Directive (EU) 2019/879 of the European Parliament and of the Council of 20 May 2019 amending Directive 2014/59/EU as regards the loss-absorbing and recapitalisation capacity of credit institutions and investment firms and Directive 98/26/EC.

31 See Report from the Commission to the European Parliament and the Council on the application and review of Directive 2014/59/EU (Bank Recovery and Resolution Directive) and Regulation 806/2014 (Single Resolution Mechanism Regulation) of 30 April 2019.

32 See Combined evaluation roadmap/inception impact assessment, European Commission, 10 November 2020.

